

"Public examinations and school assessment can directly reinforce one another if used in conjunction . . ."

graduated in 3 years, one in 4 years, one in 5 years; two were doing at least one subject in 1980, ten were not. Of twenty 1976 entrants, two graduated in 3 years, one in 5 years, and only two were still taking subjects in 1980. One may conjecture that the social factors which had initially prevented these students from matriculating were still affecting their enrolment rate.

The Faculty of Engineering at Adelaide, in spite of attempts to encourage female applicants, had very few in 1986. Cut-off scores (out of 500) ranged between 431 for Electrical Engineering and 375 for Civil Engineering. If they had had a 50% female quota, they would have had to take female students on the minimum matriculation mark (295), and the marks for male students would, of course, have risen, by how much they could not say. No doubt this situation would have partly remedied itself in later years, but one wonders what would have

happened to the quality of engineers in the meantime.

The one proposal of Marginson which seems to merit support is his fifth; the one year preliminary general course. This pattern is similar to that followed at the Australian National University, and has this year been introduced by the Adelaide University Law Faculty. If it is administratively and financially possible, it clearly has merits; but it runs contrary to Marginson's first proposals, since these students will now be selected mainly on the basis of university examination rather than the 50/50 moderated school assessment/public examinations.

It is clear that the radical proposals of Marginson have a price. The price of abolishing private schools would be largely financial; a probable additional price, paid in loss of excellence, is less obvious. For his other proposals the reverse is largely the case; the direct cost would be lowering of standards and decrease of the graduation rate; the financial cost would come in if overall quotas were raised and the staff/student ratio improved in order to restore these matters. It cannot be assumed that this money would be available, and if it is, there may well be better ways of spending it.

Socio-economic problems must be tackled where they are, e.g. by a policy of positive discrimination in funding of disadvantaged schools (such as that cur-

rently applied in Commonwealth *per capita* grants to private schools). Australia, in comparison with other developed nations, does not allot a large percentage of its budget to tertiary education, with the result that selection for universities in particular is highly competitive. The duty of anybody involved in tertiary selection is to seek out the method of selection which is the fairest available (i.e. which best predicts success in tertiary studies) and to apply it without granting favours to anybody; this combines consideration of equity with considerations of economy (producing the best graduates in the shortest time). It may be that the Commonwealth Government decides, for whatever reason seems best to it, that a particular group (e.g. Aborigines) needs special help and encouragement. If they so decide, they should provide whatever funds are necessary to bring these students up to the general level, and not expect universities to deliberately set out to select students believed to be less able in preference to other students believed to be more able. Universities exist for education; they are not the possessors of some magic spell which can, by recitation of the appropriate formula, remedy ills which have taken place in the past lives of their students¹².

*The author is a member of the Matriculation Committee of Adelaide University.

References

1. *The Australian Universities' Review* 29,1 (1986) p.21-24
2. *Current Affairs Bulletin* 60.8 (January 1984), p.22-31
3. *The Australian Journal of Education* 26 (1982), p.190-203
4. *The Australian Journal of Education* 29 (1985), p.175-187
5. West suggests an error of from 10 to 25 aggregate marks (out of 450) at the most relevant cut-off points. C. Power and F. Robertson, *Selection, Entry Requirements and Performance in Higher Education* (National Institute of Labor Studies CTEC Performance in Higher Education Study no.2, 1987) find no bias in favour of private school students in South Australian public examinations. There appears, however, on the basis of first-year results at South Australian tertiary institutions other than Adelaide University, to be a bias against female students.
6. An earlier study by B. McGaw 'The Use of Rescaled Teacher Assessments in the Admission of Students to Tertiary Study', *Australian Journal of Education* 21 (1977),

- p.207-225, incorporating other studies, showed the external examination to be a superior predictor if its aggregate marks were standardized (as is done in most states, but was only partially done in Queensland).
7. Especially: Campbell W.J. et al *Some Consequences of the Rudford Scheme for Schools, Teachers, and Students in Queensland* (A.A.C.R.D.E. Report No. 7 Canberra 1976); Fairbairn K. et al *Schools Under Radford*, Board of Secondary Studies, Brisbane 1976 (I have not been able to obtain a copy, but see below) Campbell W.J. et al *School-Based Assessments* (E.R.D.C. Report No. 7A, Canberra 1978, incorporating a survey of the two previous reports).
8. *Assessment in Secondary Colleges in the Australian Capital Territory*, Canberra 1985; p.40 is cited.

9. A complete written analysis of figures seems not to exist. These figures were supplied to me over the phone by the State Education Department of South Australia and the Adelaide office of the Commonwealth Schools Commission, whose assistance is gratefully acknowledged. Earlier (pre-category) figures may be found in *Quality of Education in Australia* (Canberra 1985), p.8-16
10. *Quality of Education in Australia* (Canberra 1985), p.47 cites figures which show that only 29.8% of the children of unskilled parents complete Year 12, as opposed to 62.8% of the children of professional parents.
11. 'Special Entry Scheme' in D.A. Hester ed. *Student Selection for Tertiary Education* (University of Adelaide Advisory Centre Occasional Paper 1982)
12. My thanks are due to Dr Chris Dawson, of the Education Department at Adelaide University, for reading this article and suggesting minor clarifications in wording. He is not responsible for the opinions expressed.

Deregulating the university system

Jon D. Stanford
Department of Economics
University of Queensland

Introduction

This is an exposition of the economic case for deregulation of the university system, not written for specialist economists but for an intelligent professional audience.¹

Deregulation can be taken to mean in a broad context the removal of government regulation of, and control over, universities. Deregulation means that the Commonwealth Government should cease direct funding of universities through the block grant system. There is a role for government in financing basic research and in providing financial assistance direct to students as part of policies to redistribute income in society (which level of government is responsible for these activities will depend on the allocation of functions in the Federation and this is a question I will not pursue here).

"The current administration levy of \$250 is a poll tax on students and serves no useful purpose."

Existing universities should finance their activities by student fees, government grants to research and private sector endowments. Student fees should be levied at departmental or faculty level. If fees are levied on an average cost basis over the whole university or university system they simply become a tax on students and lose nearly all their ability to allocate resources efficiently. The current administration levy of \$250 is a poll tax on students and serves no useful purpose.²

Existing universities should be free of government regulation in the selection of students and in the offering of courses. There should be no restriction on the entry of private universities and there should be no government regulation of private universities in respect of fees charged or courses offered.

The deregulation proposals are designed to improve efficiency in universities and to reduce the inequities in the distribution of benefits from education. In a static sense universities are currently inefficient because their costs are too high and in a dynamic sense are inefficient because they adjust very slowly to changing circumstances. A particular

problem is the failure of the present system to provide enough places to qualified entrants — this is particularly true in Queensland from where coincidentally the proposal to establish the first private university in Australia has originated. This sluggish response imposes costs on society and students.

In order to ensure efficiency in resource allocation in universities there should be changes to the method of remuneration of academics so that financial rewards should be linked directly to performance. The appropriate method is to remunerate academics directly from student fees.³ It is true that the professional graduates of universities enter professions where the fee for service principle is entrenched and is regarded as both the hallmark of professional status and the defence against encroachments upon that status.

This does not mean that the tenure system is under attack because the tenure system is designed to protect academic freedom — the right of an academic to research and teach free from internal and external political pressure — not to provide job security in the narrow public service sense independent of performance.

These proposals do not amount to privatisation of government universities in Australia; what is proposed is a dual system of both public and private providers of university education without regulation.⁴

These proposals emerged as a result of reflection about the operations of universities after two decades of experience in Australian and overseas universities. As well they reflect my judgment about the results of the post-war large scale government intervention in economic life — it is time to wind back the scale of the public sector.⁵

My preference is for market-oriented policies rather than bureaucratically determined policies on the grounds that they are likely to be more efficient and reflect individual values which are desirable ends in themselves.

The deregulation of universities as proposed would allow each university to enter the international market for the sale of education services on a market-oriented approach. Such a policy is likely to be more humanitarian than the current proposals to deliver foreign aid through education as proposed in the Jackson Report.

The case against the present system

Efficiency and resource allocation

The present system is inefficient because the method of remuneration promotes what economists call rent-seeking behaviour, i.e. attempting to obtain returns which are higher than that necessary to ensure the activity takes place. Although the argument is technical it can be explained by considering the operations of a university. The output of a university can be considered to comprise the following:

- (i) educational output — increases in students' knowledge and skills, both cognitive and social, which increase their productivity and therewith their ability to earn income;
- (ii) informational output — the reporting of students' attributes and educational attainments to students and prospective employers, which may facilitate more rational career choices and hiring decisions; and
- (iii) research output — increases in knowledge, development of new logical concepts and creations of new works of art, which may directly or indirectly increase the economy's productive capacity.⁶

The problem is to decide whether this output has been produced efficiently, i.e. has it been produced at minimum cost and is it valued by the consumers of the output. The problem is compounded because there is no way to measure directly this output.

As well where the output of the university is not sold there is no external indicator to determine if what is produced is valued by the consumers of university output. This contrasts starkly with a private firm or company which has to sell its output in order to meet its costs or go bankrupt.

What happens in universities now is that judgments about the value of output are made by referring to input criteria which will be adequate proxies for output measures if and only if two conditions hold: the first is that there is no substitution possible between inputs and secondly that there is only one way to combine inputs to produce outputs. Now we know that neither of these conditions holds. For instance there is scope for substitution of inputs — student objective

"The deregulation of universities as proposed would allow each university to enter the international market for the sale of education services on a market-oriented approach."

test examinations can be marked by hand or by computer — and there is a number of ways of producing output — students may be taught in small group tutorials or by large lectures.

Hence when universities focus their attention on input criteria such as class contact hours, utilization of classrooms, laboratories and computer installations they are only imperfectly able to make valid judgments about efficiency.

The problem regarding efficiency is made more complex because academics have a substantial degree of control over inputs in universities; to some extent they can choose how inputs are supplied. Their choices are determined in part by the remuneration system which provides that they are paid the same salary irrespective of performance or output. Hence there is an incentive for academics to choose to supply inputs in amounts and forms which are convenient to the academic and which are not necessarily the most productive ways. Thus one would expect that academics, in this situation, would manifest a preference for teaching in small classes, timetable not in the evening or on Fridays, with an unchanged syllabus. Administrators can attempt to change this behaviour by insisting on minimum attendance, i.e. office hours, minimum class contact hours, prompt attention to institutional requirements, i.e. setting examination papers but the lack of any serious sanction to enforce these demands and indeed enforcing these demands will lead only to an increase in the supply of more inputs; it will not necessarily mean greater output.⁷

The consequences of such a system have been known for over two hundred years:

In other universities the teacher is prohibited from receiving any honorary or fee from his pupils, and his salary constitutes the whole of the revenue which he derives directly in opposition to his duty as it is possible to set it. It is the interest of every man to live as much at his ease as he can; and if his emoluments are to be precisely the same, whether he does, or does not perform some very laborious duty, it is certainly his interest, at least his interest as is vulgarly understood, either to neglect

it altogether, or, if he is subject to some authority which will not suffer him to do this, to perform it in an as careless and slovenly a manner as that authority will permit. If he is naturally active and a lover of labour, it is in his interest to employ that activity in any way, from which he can derive some advantage, rather than in the performance of his duty, from which he can derive none.⁸

If on the other hand the university's revenues depend on the receipt of student fees to finance its activities there is provided a direct incentive for academics to provide services which are valued by consumers.

While this would solve the problem in relation to one aspect of university output, it leaves the question of research unsolved. University research output is characterised by two aspects, the discovery of new knowledge and the public dissemination of that knowledge by publication. Once knowledge is openly published in this way it becomes freely available for all to refer to and use; to society at large this knowledge is virtually a free good.

"There is . . . no market mechanism which will enable research to be sold in order to recoup the costs of that research."

There is thus no market mechanism which will enable research to be sold in order to recoup the costs of that research. Consequently if research is produced under market conditions there will not be the incentive for a private producer to expand to the socially optimal level of production. Social optimality will be achieved only if the government subsidies research activity. This applies to basic or pure research; it is possible to recoup the costs of applied or consultant research by sale.

The costs of the current system are inflated by past decisions about the location of institutions and the offering of courses which are made on political grounds rather than by reference to rational academic and economic criteria. The CTEC Review explicitly recognised this factor in relation to the establishment of institutions:

2.73 It is clear from the nature and number of institutions in 1975 that pressures to establish and maintain institutions can be very persuasive. It is equally clear that such pressures can have a significant effect on the overall cost of higher education . . .

2.74 For these reasons the Committee is concerned that political pressures ap-

pear to be developing again for the creation of new institutions in areas which cannot support a stand-alone institution of economic size. The Committee can see no sense in allowing a new wave of institutions to be established over the next few years simply to provide further work for a new 'razor gang' a decade or so in the future. [page 64]

Equity and the distribution of income

The present system is claimed to be equitable because the absence of fees will allow students from lower socio-economic groups to attend universities; this however is not supported by the facts.

In universities the composition of the student population is not typical of the population as a whole because it has a strong bias towards students from well-off backgrounds and who attended fee-paying schools. This is true as well of the higher education sector as is recognised by CTEC which states:

3.40 Socio-economic Composition. Whereas the socio-economic composition of TAFE broadly reflects that of society as a whole, this is not so for higher education. A substantially greater proportion of students in higher education comes from groups which may be categorised as 'high' to 'middle' in terms of socio-economic status. . . . [page 91].

The problem of low participation rates for students from low socio-economic backgrounds is deeply entrenched in society; it exists because family income is a prime determinant of participation in schools; this has been known to economists for some time — for example Paul W. Miller [*'The Determinants of School Participation Rates: A Cross-Study Sectional Analysis for New South Wales and Victoria,' The Economic Record*, 59, 164, March 1983, 43-56.] has shown that:

Family income is by far the most important determinant of school participation rates. In each age category there is a significant positive relationship between school participation and family income after standardisation for area unemployment rate, income forgone, locality, mobility and religious factors. Those with high family income are either better able to financially support their children's education, or (and) provide a home environment which fosters the development of motivation and the desire to achieve . . . [page 47].

This position appears to be maintained in later years because CTEC reported:

. . . The socio-economic status of the families of students commencing higher education is not markedly differently

from that of students completing secondary school. Thus redressing the imbalance between socio-economic groups in higher education also requires measures to eliminate educational disadvantage during primary and secondary schooling. [3.40, page 92]

This is a particular case of the more general one where the middle class captures the benefits of government subsidies originally intended for the poor; the position is well known in the United States:

Persons from middle-income and upper-income families are two or three times as likely to attend college as persons from lower income groups, and they go to school for more years at the more expensive institutions (four year colleges and universities rather than two-year junior colleges). As a result, students from higher-income families benefit the most from the subsidies.⁹

The private returns to university education

Suppose we start from the premise that undergraduate university education is a private economic commodity, i.e. all the benefits of that education accrue to the student and graduate.

This premise is in stark contradiction to currently prevalent views expressed by educational lobbies which consist of teacher unions in the public sector and the unions of teachers in higher education including FAUSA. The differences between the two premises are discussed in the next section of the paper. The decision to undertake full-time education involves a cost-benefit analysis.

The costs of fulltime education are:

- the monetary costs of fees, books, materials and other course requirements and

- the opportunity costs of education — the income forgone by undertaking study.

While the benefits are:

- the higher life time earnings generated by the possession of education and of a degree and

- the consumption aspects of education enjoyed while an undergraduate such as doing courses for "cultural" or "general intellectual" development.

Very few studies of the economic returns to university education fail to find substantial economic and financial returns to university education; these returns are private returns which accrue to individuals.¹⁰

It is also certain that the motivation of most students in universities is to acquire these private returns; this has been recognised by the Robbins Report in the United Kingdom:

. . . Confucius said in the Analects that it was not easy to find a man who studied for three years without aiming at pay. We deceive ourselves if we claim that more than a small fraction of students in institutions of higher education would be where they are if there were no significance for their future careers in what they hear and read; and it is a mistake to suppose that there is anything discreditable in this. Certainly this was not the attitude of the past: the ancient universities of Europe were founded to promote the training of the clergy, doctors and lawyers; and though past times there may have been many who attended for the pursuit of pure knowledge or for pleasure, they surely must have been a minority.¹¹

Put in the cold calculated analysis of the market university education is a good investment; not only do graduates on average enjoy greater lifetime earnings than holders of high school certificates but the variance of the income stream is less, indicating that university graduates enjoy more secure earnings.

It is clearly worthwhile now, as it has been in the past, for undergraduates to borrow to finance their education; their lifetime earnings will be sufficient to repay the debt and leave them better off than if they had not obtained the degree.

Why loans will not be generally made on a commercial basis is because of the existence of moral hazard; the deliberate nonrepayment of debt charges and principal. (An instance of this is to be found in the USA Government's programme of student loans where the level of default is very high.)

"It is clearly worthwhile now, as it has been in the past, for undergraduates to borrow to finance their education . . ."

However it is worthwhile for students to obtain funding through the family as noneconomic considerations may ensure such debts are repaid or may be viewed as an appropriate intergenerational transfer.

It may also be worthwhile for potential employers to offer assistance with the costs of university education in return for future service or as a philanthropic gesture.

Students who are excluded on financial grounds from fulltime education are not necessarily barred from university education: the provision of part-time study and study by distance education has been the traditional way in Australia to meet the demands of such students.

Social returns to university education

It is often argued that there are positive externalities to university education i.e. that there are returns to society as a whole which are not captured in private benefits from education.

There are a number of strands to the social returns argument:

1. the external effects of university research are substantial;
2. university education provides general cultural benefits to the community;
3. university graduates are better citizens than non-graduates.

We have already examined the case of research and found that it does provide benefits to the whole community which are greater than the revenue which could be obtained from selling that research.

Generally the second class of argument points to general cultural spinoffs for university education; for example, Friedman and Friedman cite extracts from the Carnegie Commission in the United States to illustrate this point:

general advancement of knowledge . . . greater political effectiveness of a democratic society . . . greater social effectiveness of society through the resultant better understanding and mutual tolerance among individuals and groups; the more effective preservation and extension of the cultural heritage.¹²

Richard Attiyeh has put the third issue clearly: "The proposition that there are desirable external effects from higher education is based on a belief that a person, by obtaining a university degree, becomes a more intelligent voter, a more responsible citizen, a better neighbour."¹³

I would not deny the possibility that such benefits may exist. However I am very sceptical of these arguments and am inclined to regard them as special pleading by self-interested groups and even more sceptical about the magnitude of such benefits. I personally would be reluctant to use this as a cornerstone for public subsidy to universities. There is a need to determine what their relative size may be; in the absence of any available evidence I took an informal poll of my colleagues in the common room which disclosed that none of them thought that the benefits would be as high as 20 per cent of the output of universities and most were sceptical that these benefits were substantial.

One can advance contrary arguments that university education leads to undesirable effects such as an increase in sophistry, pedantry and snobbery. In addition it can be said that the external benefits argument can have the effect of granting privileged status to certain subjects or disciplines because these benefits are alleged to reside peculiarly in the study

of these disciplines. One example of this is the old assertion that study of the classics was necessary to be an educated person; viewed with the advantage of hindsight I would maintain that this assertion was special pleading and its acceptance had done some harm to education and to students who were required to study such subjects.

I would not care to place much weight on these contrary arguments but there is an area where it is highly likely that there are negative external benefits resulting from university education. The filter theory¹⁴ of higher education supplies the basis for this conclusion.

Contrary to the conventional view of economists that education adds to an individual's productivity and therefore increases the market value of his labour and the educator's view that education is a process of socialisation, the filter theory maintains that 'higher education serves as a screening device in that it sorts out individuals of different abilities, thereby conveying information to purchasers of labour.'¹⁴

Screening is an element in labour market recruitment procedures in which employers use education as a "sorting device to reduce the number of applicants and therefore the information (and concomitant costs) needed to make a final decision".¹⁵

Screening leads to credentialism — the process of attaining qualifications because employers will not consider anyone without them even though it may not be necessary to have such qualifications in order to do effectively the job. In this case the employee with the credential gains relative to the one without the credential but this private gain is greater than the social return.

It is possible, and altogether likely, that the existence of credentialism will encourage employees to invest in education and this may lead to over-investment in education.

The case for private universities

The proposal to establish a private university — the first in Australia — on Queensland's Gold Coast by the Bond Corporation has brought the question of the desirability of such a development into public discussion. Consistent with the support for a deregulated system the decision to establish a private university should be a private one; but there are positive factors favouring private universities. A private university can expand the number of places available to qualified school leavers; can have a different academic organisation, develop new courses of study, employ or develop new teaching techniques and practices. There

are social benefits to diversity and to experimentation in higher education.

If university education does involve the production of favourable externalities, as is certain in the case of research and may occur in other ways, then there is a case for government subsidisation of universities and this case must extend to private universities.

An estimation of student fees under deregulation

It is interesting to ask what would undergraduate fees be under a deregulated system; in doing so it becomes apparent that this is a complex question involving subsidiary questions of how expansion in universities would be financed and how much of the benefits of university education are in fact social and ought to be financed by government. It is not possible here to consider all of these issues in depth¹⁶ but it should be possible to give some indication of the order of magnitude of fees involved, keeping in mind that if deregulation were to increase efficiency it requires that fees are levied on a cost basis at department or faculty level and not on average costs over an institution or over the whole system.

In order to get a 'ballpark' figure we need to make a few assumptions which are that the current average costs of universities provide some guide to future costs; the full costs of research should not be treated as a private cost and some allowance can be made for the social benefits of university education.

An examination of the average operation cost of universities suggests that for the 'low cost' courses such as Arts/Social Sciences/Commerce the average annual operating cost per student is certainly no less than \$5000 and possibly around \$6000 — let's take this as the basis of further figuring — and further assume that research costs amount to 30 per cent of this figure. Assuming that social benefits of university education do exist and can be put in the range of 0-20 per cent of costs, we would finish up with an indicative range of approximately \$3300 to \$4200.

An indication of fees in the 'medium cost' area of Science and Technology would be of the minimum order of \$10,000 to \$12,000 a year and in the professional faculties of Medicine and Vet Science something of the order of \$15,000 to \$20,000. (I would have much less confidence about these figures than the 'low cost' estimates in which area I have a much better feel for the costs involved and because capital costs are far more important in the other areas and reported costs will depend critically on how these costs are accounted for.)

These figures are indicative of the private costs imposed by students in the

system which should be recoverable by those students from private income in the future.

Could we expect that these fees might be reducible under deregulation? The answer to this question is yes. Under deregulation there are stronger incentives to rein in costs and to provide more productive techniques particularly in teaching and as well students would be more willing to consider alternative ways to reduce time spent at university. At present there is a considerable degree of cross subsidisation of activities in universities so that high cost activities are shielded from the harsher economic realities; under deregulation the scope for cross-subsidisation is considerably diminished especially if there is freedom of entry to new private institutions.

Additionally a newly established private university would have a considerable opportunity to reduce operating costs by adopting state of the art technology and by eliminating from the outset the restrictive work practices which apply in the existing universities. It would also be able to generate 'one off' economies by attracting the more productive academics from the existing universities. These could not be expected to persist over the long haul but in the short term they could provide some offset to the capital costs which would have to be met by the private university.

A consideration of the case against deregulation

Some of the opposition to deregulation rests upon the premise that university education is special — university education is not a commodity — and should not be considered in economic terms. The response to this is the plain statement of fact that the provision of university education does use economic resources on a fairly large scale — the average operating cost of Australian universities is of the order of \$9000 per student per year — and it is clear that there is a growing resistance in the community to funding further increases in university spending based on tax finance. The proposition that university education provides benefits to the community which are not captured in the market mechanism is one which for the purposes of the argument I am willing to concede, although as I have indicated I am sceptical of the magnitude of those benefits apart from those arising from research but by itself this proposition is not able to justify more than a minor subsidy to universities.

It is often said that there are no observable cases in the world of purely private universities as if this constitutes an argument against deregulation.

However this is only to be expected if

there do exist external benefits of university education.

Two other fears expressed in relation to deregulation are that private universities will not maintain academic standards and that private universities will fail and then impose costs on the government.

In relation to the first fear it must be pointed out that at present in Australia there are no guarantees that academic standards will be maintained; there is a wide variation in standards both at the entry level (as measured by minimum required school leaving results) and at the exit level.

Whether private universities will survive under deregulation is a matter of speculation — my guess is that they would — but even if they do fail the net costs of picking up the pieces, i.e. ensuring completion of studies by the enrolled students, is liable to be very small and shortlived.

The most emotive issue in relation to deregulation is whether poor students would be excluded from university education so that equality of opportunity in education does not exist in our community. We have shown in this paper that the present system is inequitable and the question of fees is entirely irrelevant to this issue.

Some of the criticisms of deregulation are essentially related to problems of tran-

sition from the present system to a deregulated system. For example it is asked, perfectly legitimately by students, how would students be able to pay fees of the order indicated previously in this paper or higher? Clearly if they were suddenly required to pay these next year it would pose problems. However, if fees were a permanent feature of universities so that it were known by parents from the birth of their children that they are liable for the cost of the university education of their children it would be possible to develop financial plans to ensure the fees can be met.

It is also clear that transition to a deregulated system would impose costs on groups in the present university system; among these would be academics who currently do not pull their weight in teaching and research; administrators who would not be needed to administer the complex regulations at presently in force; members of government bodies like the Commonwealth Tertiary Education Commission and other bureaucrats in Canberra.

Outside the universities fee-paying schools would find that the scope for them to increase fees would be reduced because families' education budgets would have to stretch further.

Who would benefit? Students who at

present cannot obtain a place but are willing to pay for one; students generally who would receive better instruction and the community at large which would pay less for more and better education.

Conclusion

While there still remain a number of issues to be canvassed in the debate on deregulation of universities and while there are considerable gaps in our empirical knowledge of the benefits of university education and of university costs structures and functions, there is a clear enough case for deregulation.

The case of deregulation rests on two grounds that:

- (a) a deregulated system would be more efficient in producing more at lower average cost; and
 - (b) a deregulated system would be more equitable in that the costs of university education would be met by those who obtained those benefits.
- (c) under deregulation there would be a significant role of government to play in subsidising research and any general social benefits of universities and making available scholarships to students as part of the process of redistribution of income in the community.

References

1. J.D. Stanford, "Public Policy Towards Higher Education — The Case For A Market Oriented Approach", 56th AN-ZAAS Massey University, Palmerston, New Zealand, January 1987.
2. The discussion of the international aspects of university education and the proposals for the export of educational services which appear in previous papers is not explored here. J.D. Stanford, "International Trade in Education", in Roselyn R. Gillespie and Colin B. Collins (eds), *Education as an International Commodity*, ANZCIES, Brisbane, 1986, pp. 39-49.
3. J.D. Stanford, "The Economic Case For Internationally Traded Market Oriented Educational Courses", *Research Report 8703*, Queensland Economic Policy Research Unit, University of Queensland.
4. Academics perform three major roles: they are teachers; researchers and officers of an educational establishment. Their remuneration should reflect this and their remuneration should consist of a salary in their role as researchers and remuneration, preferably directly from fees as teachers. In addition academics may earn further remuneration as consultants.
5. The position would then be similar to other sectors of the economy such as banking, domestic air transport and broadcasting.
6. The benefits of deregulation of universities will be greater if they are undertaken as part of a general programme of reducing public sector outlays and taxation but it is my judgment that they are worth pursuing in their own right.
7. Richard Attiyah, "Survey of the Issues", in Keith G. Lumsden (ed), *Efficiency in Universities: The La Paz Papers*, Elsevier, Amsterdam, 1974, p. 5.
8. This is not to imply that all academics behave in this way; many are motivated by genuine commitment to academic and professional values and a willingness to do the best for their students.
9. Adam Smith, *The Wealth of Nations*, Vol. 2, ed. E. Cannan, London, Methuen, 1904. [Originally published 1776].
10. Milton and Rose Friedman, *Free to Choose*, Harmondsworth, Penguin, 1981, p. 218.
11. Australian studies are evaluated in R. Blandy, J. Hayles and A. Woodfield, "The Economics of Education in Australia 1962-1977" in F.H. Gruen (ed), *Surveys of Australian Economics*, Vol. 2, Geo. Allen and Unwin, Sydney, 1979.
12. Report of the Committee appointed by the Prime Minister under the Chairmanship of Lord Robbins 1961-63, HMSO, Cmd 2154 (October 1963), chapter 2, 6, paras 22-9. Cited in R. Bell, G. Fowler and K. Little, *Education in Great Britain and Ireland*, London, Routledge & Kegan Paul, 1973, page 191.
13. Milton and Rose Friedman, *Free to Choose*, Harmondsworth, Penguin, 1981, p. 218.
14. Richard Attiyah, "Survey of the Issues", in Keith G. Lumsden (ed), *Efficiency in Universities: The La Paz Papers*, Elsevier, Amsterdam, 1974.
15. Kenneth J. Arrow, "Higher Education as a Filter", in Keith G. Lumsden (ed), *Efficiency in Universities: The La Paz Papers*, Elsevier, Amsterdam, 1974.
16. M. Nowak, "Employment Recruitment and Labour Market Information — Theory and Evidence", *Economic Analysis and Policy*, 14, 1, 1984, pp. 1-19.